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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,883	06/28/2001	Hong Man Moon	8733.426.00	3032

7590 12/17/2002  
LONG ALDRIDGE & NORMAN LLP  
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Washington, DC 20004

EXAMINER

RUDE, TIMOTHY L

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 12/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/892,883	MOON ET AL.	
	Examiner	Art Unit	
	Timothy L Rude	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 10-20 is/are allowed.
- 6) ☒ Claim(s) 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 6) <input type="checkbox"/> Other:  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

1. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Komatsu  
USPAT 6,335,770 B1.

As to claim 6, Komatsu teaches in Figure 5 an in-plane switching mode liquid crystal display device comprising: a plurality of data lines, 102, for applying data signals to a thin film transistor array; a plurality of gate lines, 101, for applying gate signals to the thin film transistor array; and a plurality of common voltage lines connected to common voltage pads, 157 (two places), for applying a common voltage to the thin film transistor array, (col. 5, lines 39-65) wherein the common voltage lines provided in an outer area of the thin film transistor array are spaced from the transistor array by a predetermined distance. It is noted that the common voltage lines provided in an outer area of the thin film transistor array are spaced from the transistor array by a predetermined distance as

Art Unit: 2871

a necessary function of the design of Komatsu regardless of any lack of disclosure of what that predetermined distance happens to be in the invention of Komatsu.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

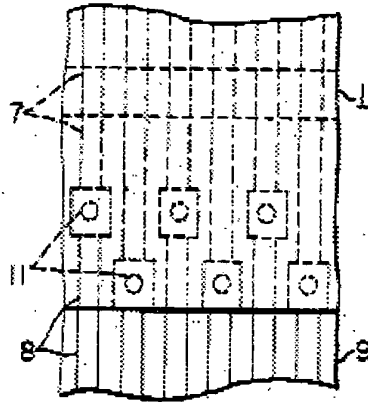
2. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu as applied to claim 6 above, in view of Tanaka et al (Tanaka) USPAT 4,295,711.

As to claim 7, Komatsu discloses the in-plane switching liquid crystal display device according to claim 6.

Komatsu does not explicitly disclose a display wherein the predetermined distance is greater than or equal to 1mm (claim 7); equal to or greater than 1mm and less than or equal to 1.5mm (claim 8); or greater than 1.5mm (claim 9).

Tanaka teaches in Figures 1-5 the use of terminal and conductor (Applicant's line) spacing in the ranges of 1.5mm or more (col. 1, lines 5-18) and 1.0mm or more (col. 1, lines 22-34) in order to connect them to an external circuit.

FIG. 5a



Tanaka is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to use a predetermined distance that is greater than or equal to 1mm; equal to or greater than 1mm and less than or equal to 1.5mm; or greater than 1.5mm in order to connect them to an external circuit.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD of Komatsu with the predetermined distance of Tanaka that is greater than or equal to 1mm; equal to or greater than 1mm and less than or equal to 1.5mm; or greater than 1.5mm in order to connect them to an external circuit.

***Allowable Subject Matter***

3. Claims 1-5 and 10-20 are allowed.

Art Unit: 2871

The following is a statement of reasons for the indication of allowable subject matter:

As to claim 1, relevant prior art of record did not disclose, alone or in combination, an in-plane switch mode liquid crystal display device as claimed comprising: "a plurality of dummy signal lines parallel to the common voltage lines and adjacent to the common voltage lines for applying alternating current signals". It is noted that although prior art exists wherein electrostatic shorting dummy lines are formed in the off-display region, they do not meet the claim means plus function recitations.

The closest combination is Komatsu in view of Zhang et al (Zhang) USPAT 5,956,009 but the combination does not teach all recitations of the claim. References exist that teach the use of dummy lines to electrically isolate signal lines in the display area and to provide testing capabilities or electrostatic protection etc, but there is no motivation to combine references to comprise the specific invention as claimed.

As to claim 10, relevant prior art of record did not disclose, alone or in combination, an in-plane switch mode liquid crystal display device as claimed comprising: "at least one dummy data line, parallel to said data lines, for applying a compensation signal"; wherein the common voltage lines are provided outside the thin film transistor array, and wherein the common voltage lines are spaced a predetermined distance from the thin film transistor array. It is noted that although prior art exists

Art Unit: 2871

wherein electrostatic shorting dummy lines are formed in the off-display region, they do not meet the claim means plus function recitations.

The closest combination is Komatsu in view of Zhang et al (Zhang) USPAT 5,956,009 but the combination does not teach all recitations of the claim. References exist that teach the use of dummy lines to electrically isolate signal lines and to provide testing capabilities or electrostatic protection etc, but there is no motivation to combine references to comprise the specific invention as claimed.

As to claims 2-5 and 11-20, they are directly or indirectly dependent upon claims with allowable subject matter above.

### ***Conclusion***

References cited but not applied are relevant to the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L Rude whose telephone number is (703) 305-0418. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on (703) 308-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

Application/Control Number: 09/892,883

Page 7

Art Unit: 2871


872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.



TLR  
December 9, 2002

Timothy L Rude  
Examiner  
Art Unit 2871



ROBERT H. KIM  
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